ABSTRACT OF THE DISCLOSURE

The present invention incorporates triple-mode, mono-block resonators that are smaller and less costly. The size reduction has two sources. First, the triple-mode mono-block resonator has three resonators in one block. This provides a 3-fold reduction in size compared to filters currently used which disclose one resonator per block. Secondly, the resonators are not air-filled coaxial resonators as in the standard combline construction, but are dielectric-filled blocks. The coupling between modes is accomplished by the corner cuts. One oriented along the Y axis and one oriented along the Z axis. In addition, a third corner cut along the X axis can be used. Corner cuts are used to couple a mode oriented in one direction to a mode oriented in a second mutually orthogonal direction. Each coupling represents one pole in the filter's response. Therefore, the triple-mode mono-block discussed above represents the equivalent of three poles or three electrical resonators.